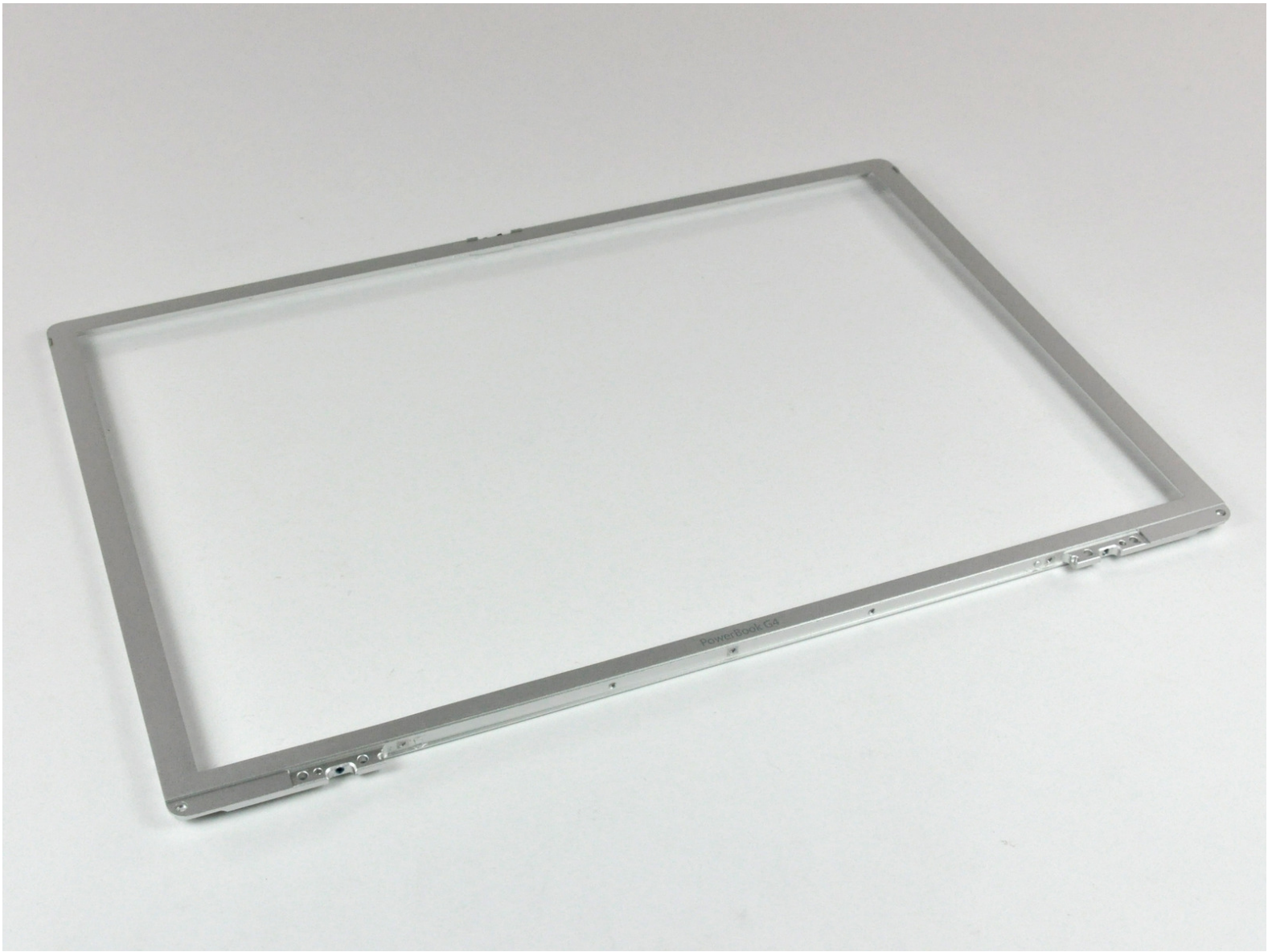
PowerBook G4 Aluminum 15" 1-1.5 GHz Front Display Bezel Replacement

Replace a damaged PowerBook G4 Aluminum 15" 1-1.5 GHz front display bezel.

Written By: Walter Galan



INTRODUCTION

Use this guide to replace a damaged front bezel.

TOOLS:

- Coin (1)
- Phillips #00 Screwdriver (1)
- iFixit Opening Tools (1)
- Spudger (1)
- T6 Torx Screwdriver (1)
- T8 Torx Screwdriver (1)

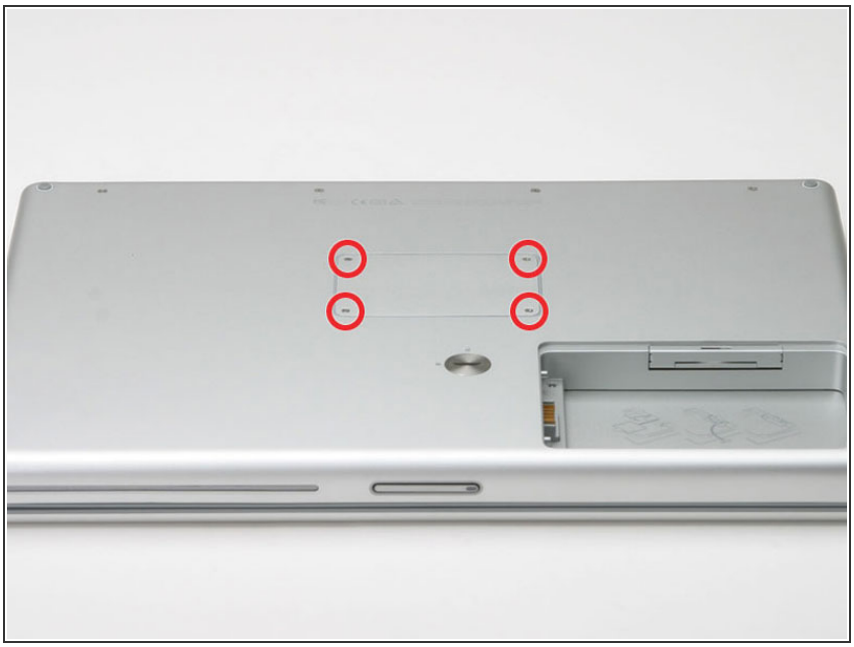
PARTS:

- G4 Aluminum 15" Front Display Bezel (1)

Step 1 — Battery

- Use a coin to turn the battery locking screw 90 degrees clockwise.
- Lift the battery out of the computer.

Step 2 — Upper Case



- Remove the four Phillips screws from the memory door.
- Slide the memory door away from the memory compartment.

Step 3

- Remove the following 8 screws:
  - Two 3 mm Phillips in the battery compartment, on either side of the battery contacts.
  - Two 9 mm Phillips on either side of the memory compartment.
  - Four 16 mm Phillips along the hinge.

Step 4

- Rotate the computer 90 degrees clockwise, so that the power receptacle faces you.
- Remove the three 3 mm Phillips screws.

When replacing these screws, you must place each screw in the correct order. Begin by installing the screw closest to the display hinge, and go out from there.

Step 5

- Turn the computer 90 degrees clockwise so that the hinge faces you.
- Remove the bottom 5 mm Phillips screw on either side of the hinge (two total).

Step 6

- Rotate the computer 90 degrees clockwise, so that the ports face you.
- Remove the three 3 mm Phillips screws.

When replacing these screws, you must place each screw in the correct order. Begin by installing the screw closest to the display hinge, and go out from there.

Step 7

- Turn the computer over and open the display.
- Remove the 4.2 mm 1/16" H 1.5 hex screws in either corner, next to the display (a T6 Torx driver will also do the job nicely).

Step 8

This step covers the hardest part to get inside this computer. Take a deep breath and think happy thoughts.

- Grasp the back corners of the upper case and pull up, disengaging hidden tabs on the sides. Do not pull the upper case off yet; you still need to free tabs in the front of the case.

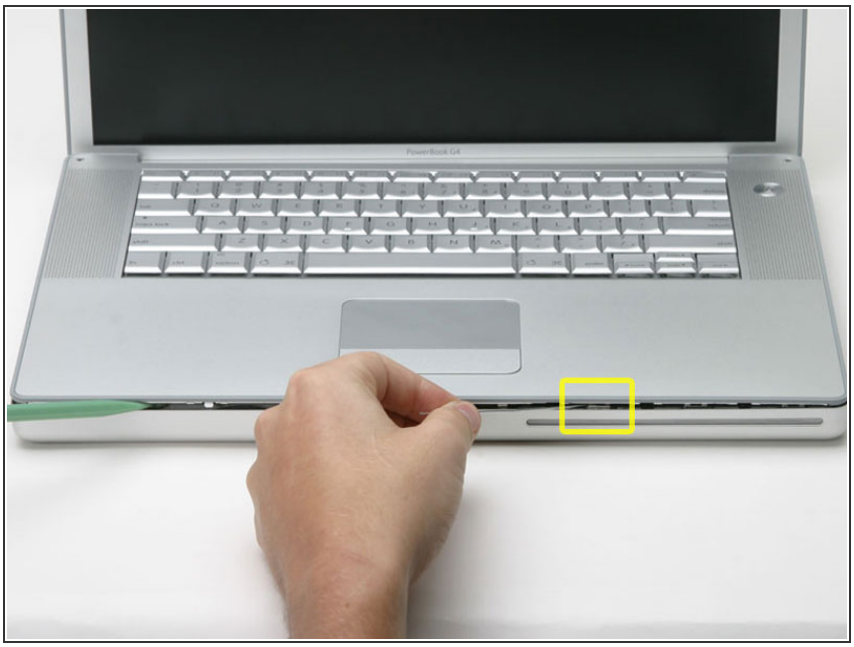
The seam is beneath the plastic molding on the upper case.

Step 9

There is one latch that stops you from pulling the upper case right off, located on the left side of the optical drive slit. To free the upper case, you will be pulling a thin metal latch toward you, freeing it from the clasp holding it in place.

- Pry up the left side of the upper case slightly with your hand and wedge a spudger into the seam between the upper case and lower case.
- Leave the tool in place applying pressure to the upper case for the next step.

Step 10

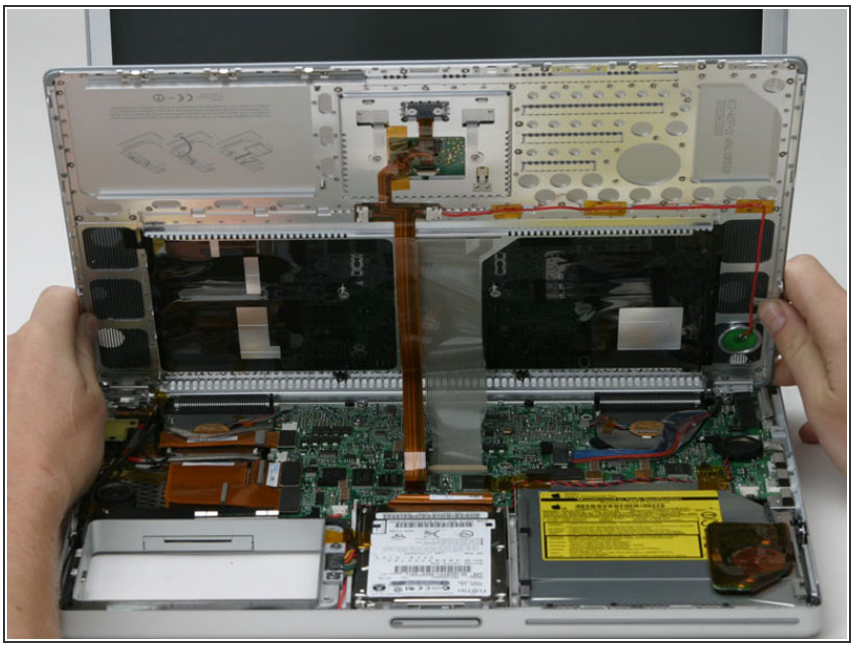


- Place enough pressure on the upper case to allow you to slide a tool just within the seam between upper case and lower case as shown in the picture. A dentist's hook, push pin, or similar tool will work.

Do not yank the upper case off as soon as you free the clasp. The case is attached to the logic board via two ribbon cables.

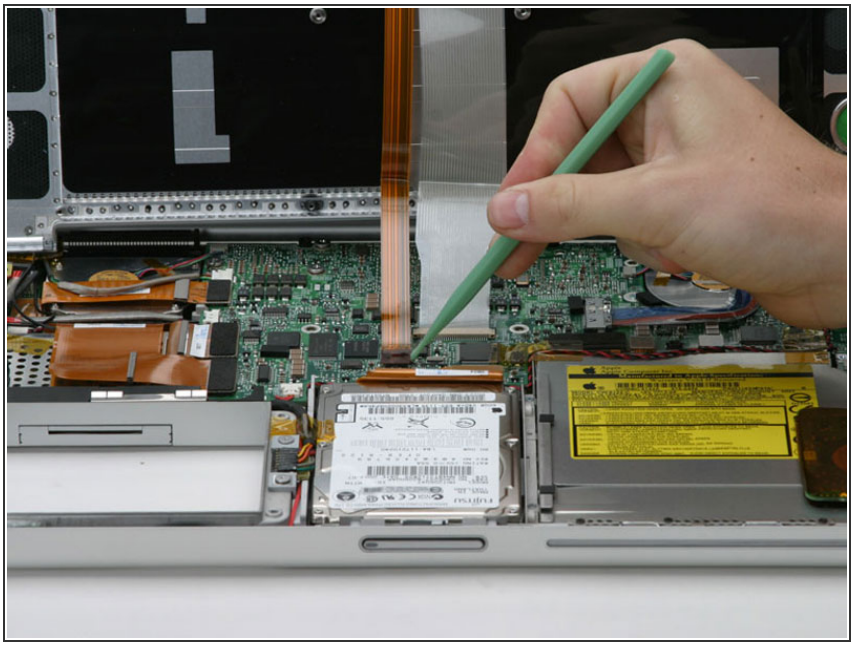
- Delicately slip the tip of your tool behind the silver metal latch and pull it forward while pulling up on the case. This may take some effort.
- Alternatively, you can free the clasp with a small flathead screwdriver through the CD slot. The clasp is 1-3/16 in (3cm) from the left side of the slot. Use the screwdriver to lift out (or press back) the felt lining; then use the screwdriver to pull the clasp (shiny metal) forward to free it from the catch behind it (dull metal).

Step 11



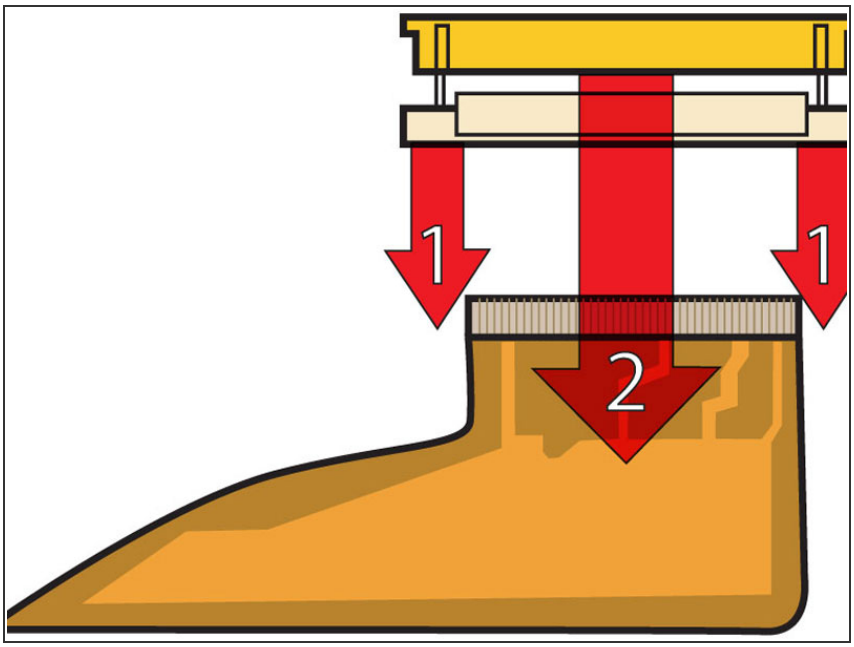
- Lift the back of the case up and work your fingers along the sides, freeing the case as you go. Once you have freed the sides, you may need to rock the case up and down to free the front of the upper case.
- Rotate the upper case up and toward the screen, so that the upper case rests against it.

Step 12



- Remove the orange tape securing the trackpad ribbon to the logic board.
- Disconnect the trackpad ribbon from the logic board.

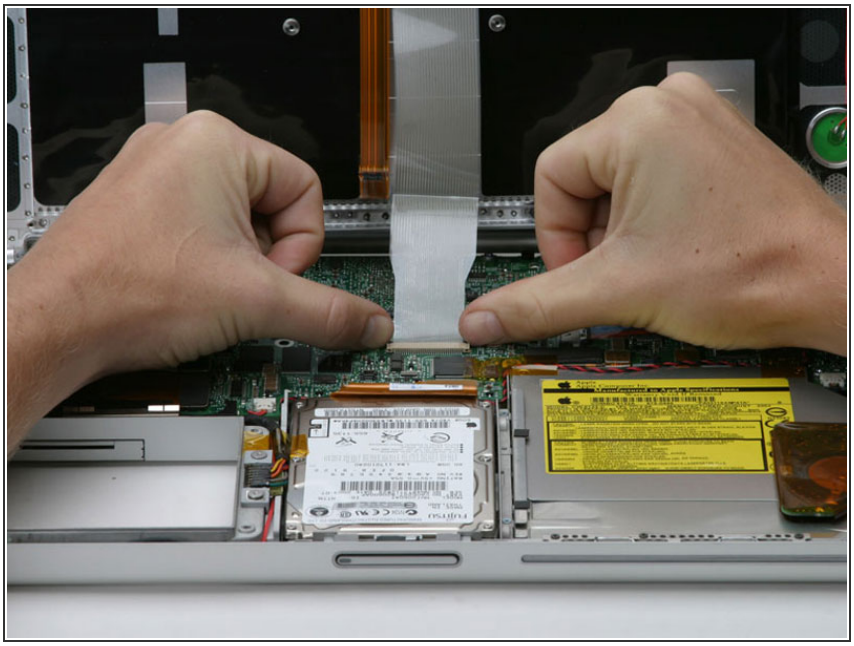
Step 13



This is a diagram of the keyboard ribbon clamp connector you will disconnect in the next step.

- 1) With your fingernails, grasp the locking bar on either side and pull up a small amount (about 1/16" or 2 mm).
- 2) After disengaging the locking bar, slide the cable out of the connector.

Step 14



- Loosen the keyboard ribbon clamp by pushing the thin black piece toward the screen, using the tips of your fingers.

The black piece is very fragile and easily broken. Use care when separating it from the main socket.

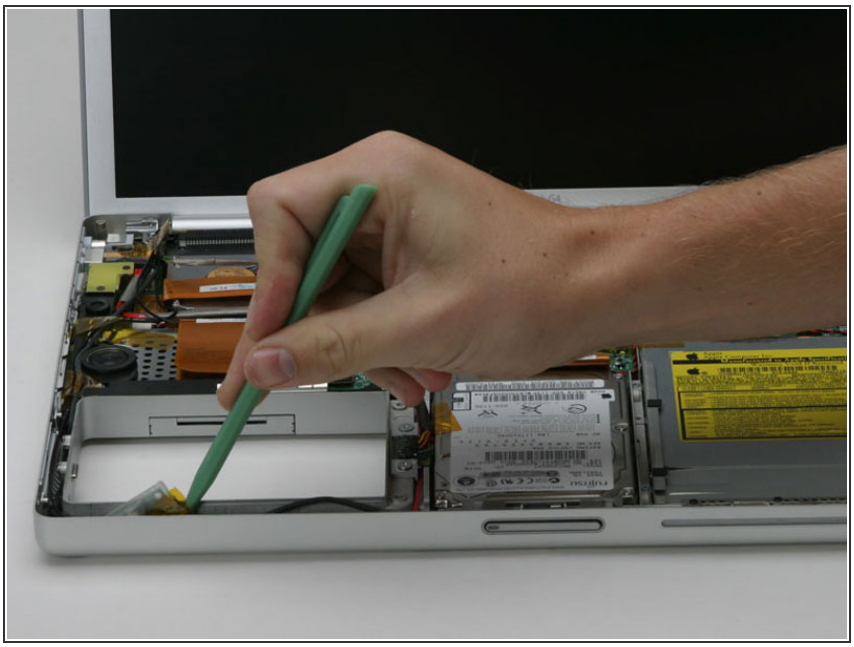
- Slide the grey keyboard ribbon out of the loosened connector.
- Remove the upper case from the computer.

Step 15 — Display

If you have already removed the hard drive or optical drive, your computer may differ slightly from the images in this section. These parts do not affect this procedure.

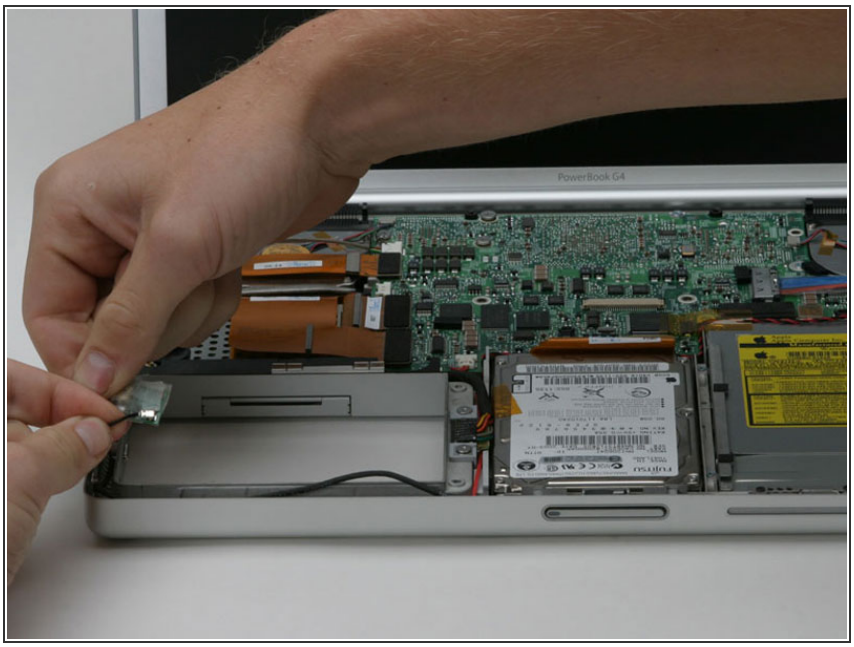
- Close the display and turn the hinge side of the computer to face you.
- Remove the remaining Phillips screw on either side of the hinge (two screws total).

Step 16



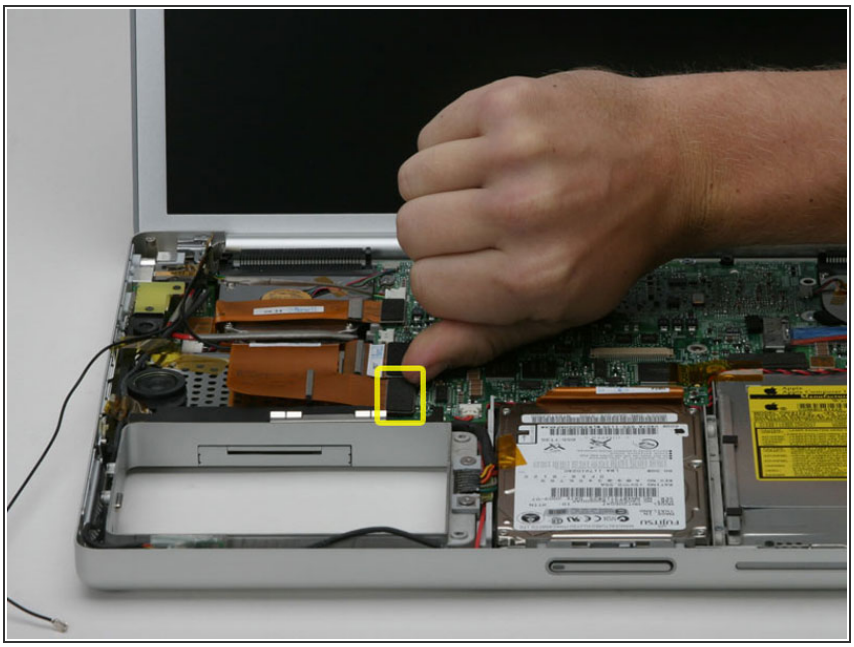
- Open the computer with the display facing you.
- Use a spudger to pry the bluetooth board from the gap between the battery housing and front of the lower case.

Step 17



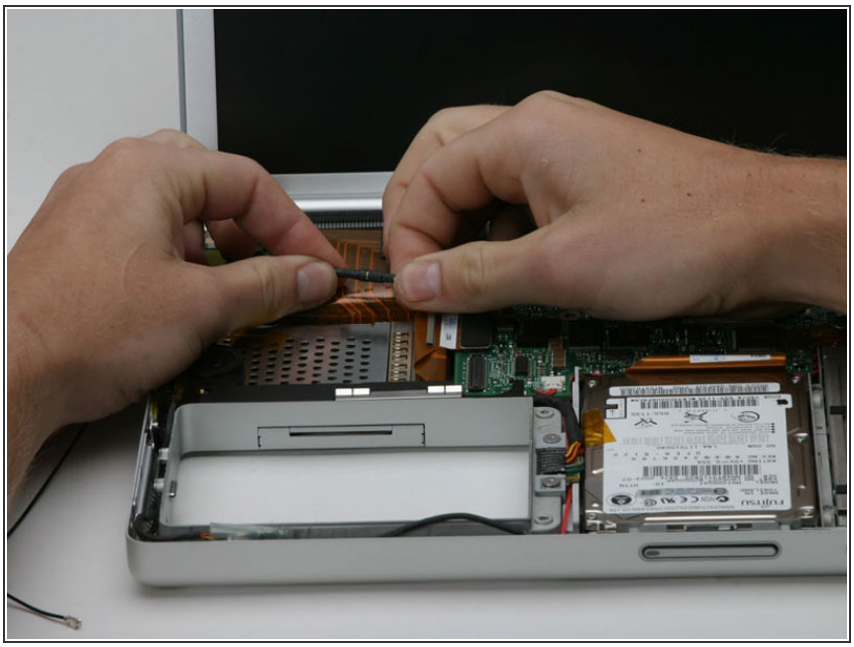
- Disconnect the bluetooth antenna cable from the bluetooth board.
- Deroute the bluetooth antenna cable along the left edge of the computer, removing tape as necessary.

Step 18



- Disconnect the large orange Airport ribbon from the logic board.

Step 19

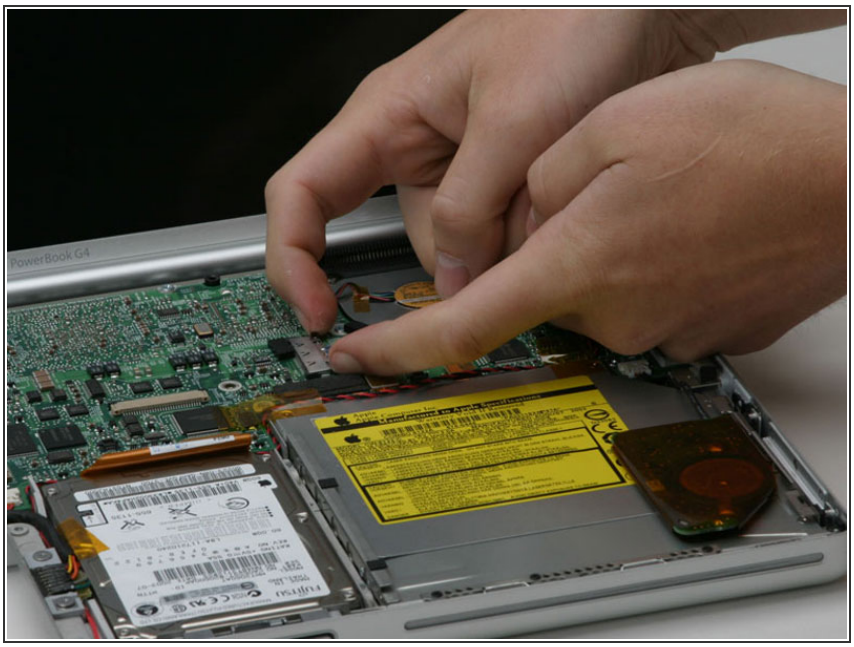


- Pull the Airport ribbon cable up in order to access the black Airport antenna connector.
- Disconnect the Airport antenna cable at the black connector, making sure you pull only on the black rubber portion of the connector.

Step 20

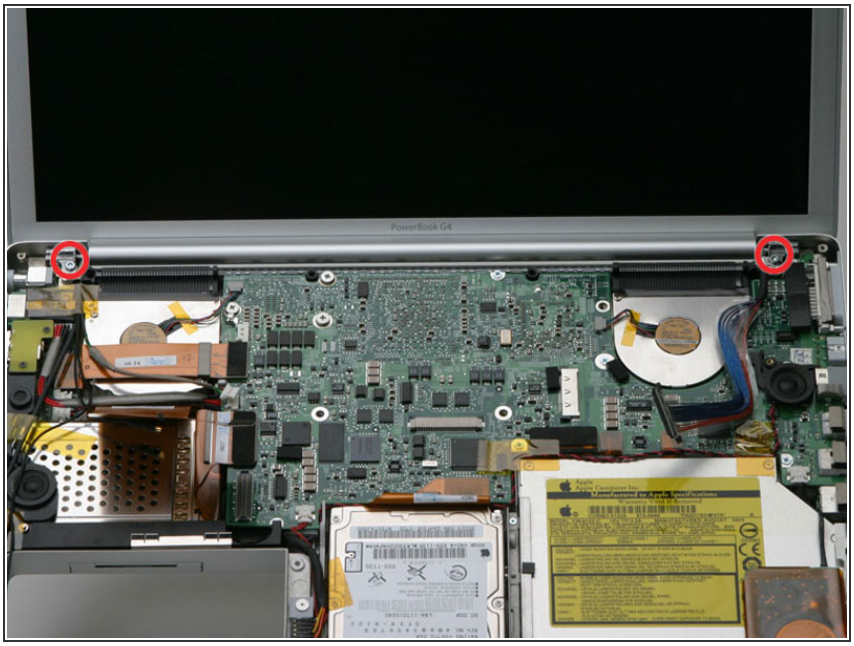
- Disconnect the inverter cable from the logic board.

Step 21



- Remove the two pieces of orange tape covering the display data cable and disconnect the cable from the logic board.

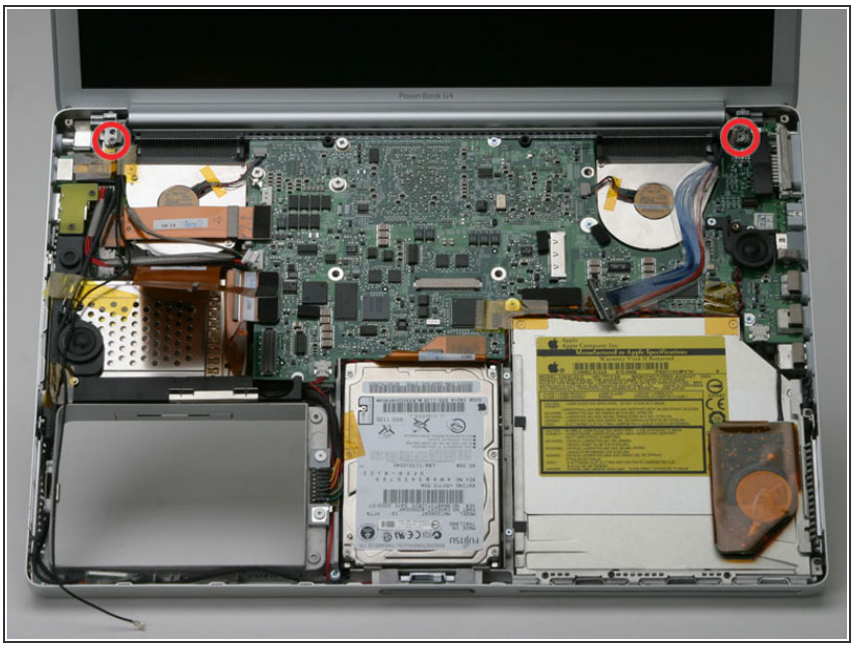
Step 22



Make sure you've freed up all four cables attached to the display assembly, and will pull away easily with the rest of the display.

- Remove the T8 Torx screw closer to the display on either side of the hinge (two screws total).

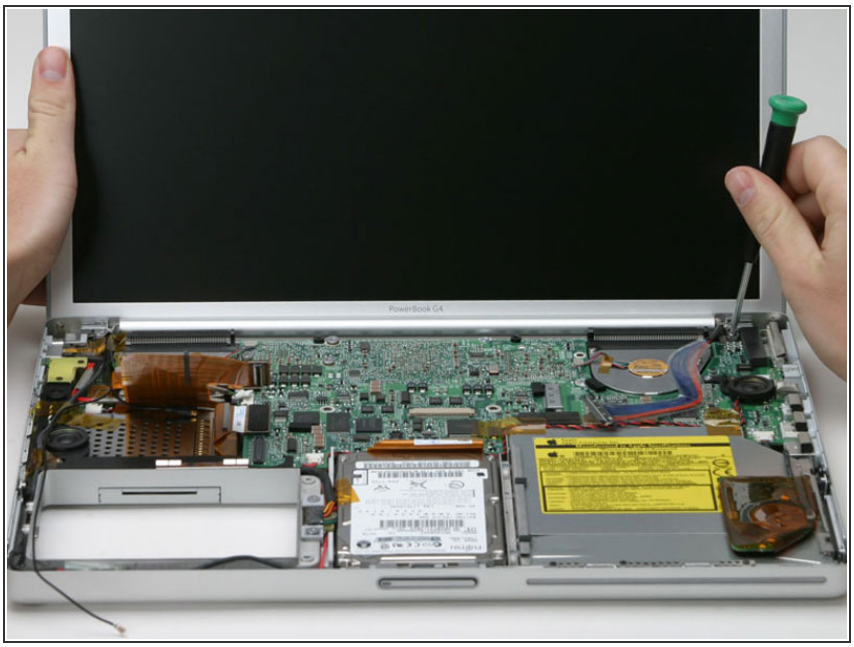
Step 23



Be sure to support the display with one hand while removing the final two screws.

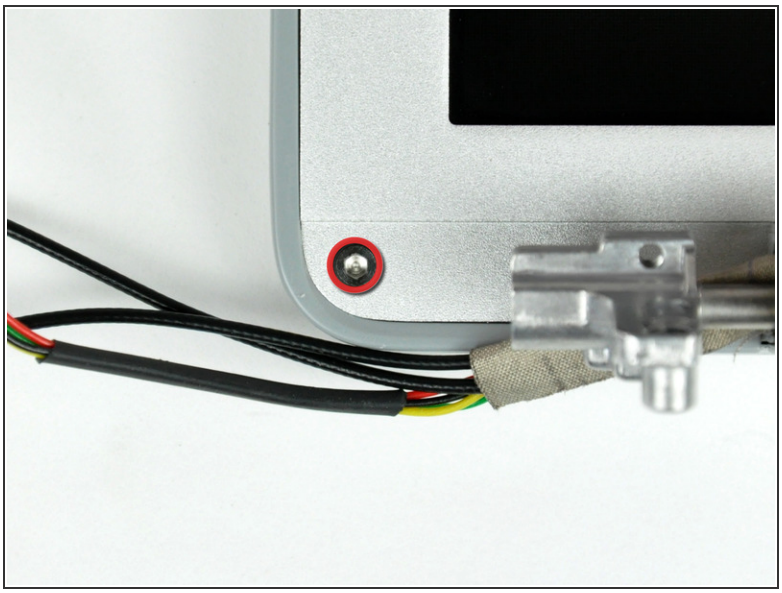
- Remove the longer T8 Torx screw remaining on either hinge (two screws total).

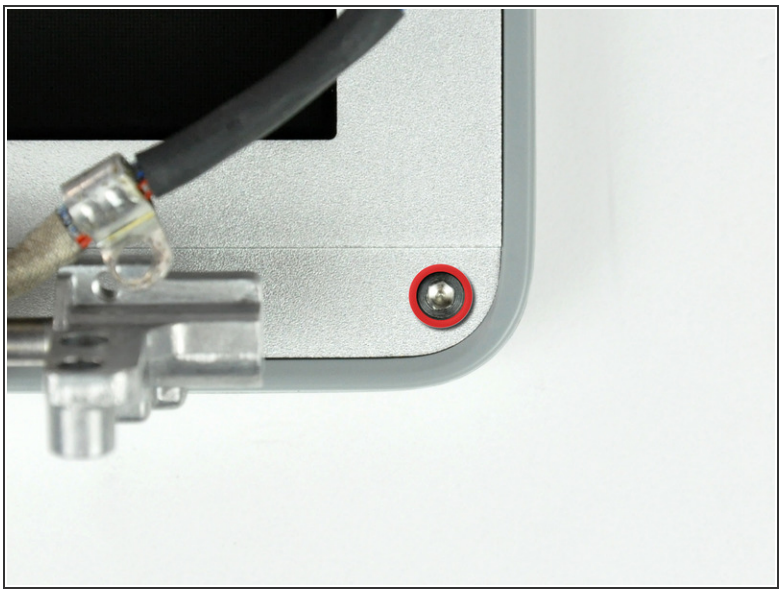
Step 24



- Lift the display off.

Step 25 — Rear Display Bezel

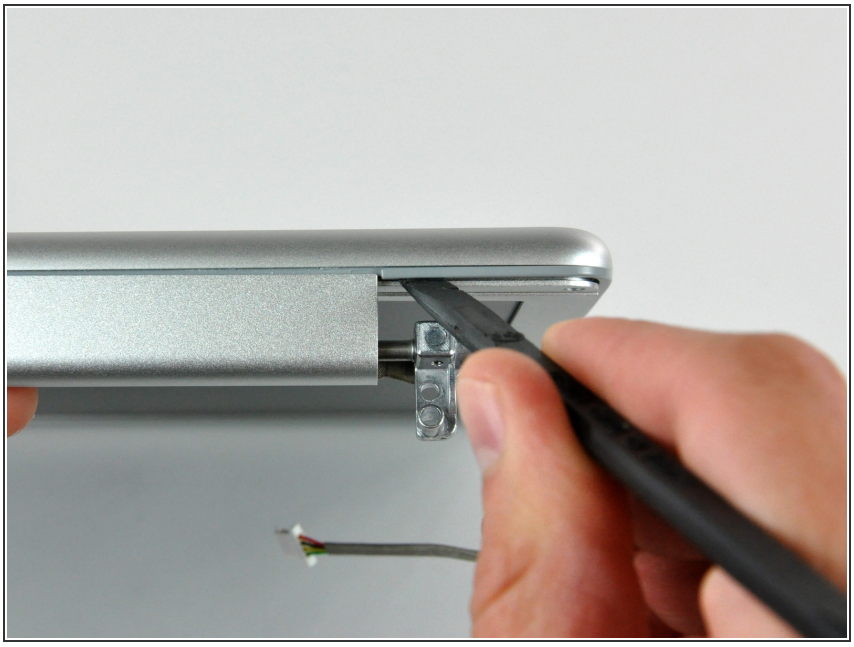




- Remove the two 11 mm X 1.5 mm hex screws near the lower left and right corners of the display.

A T6 Torx screwdriver works just fine.

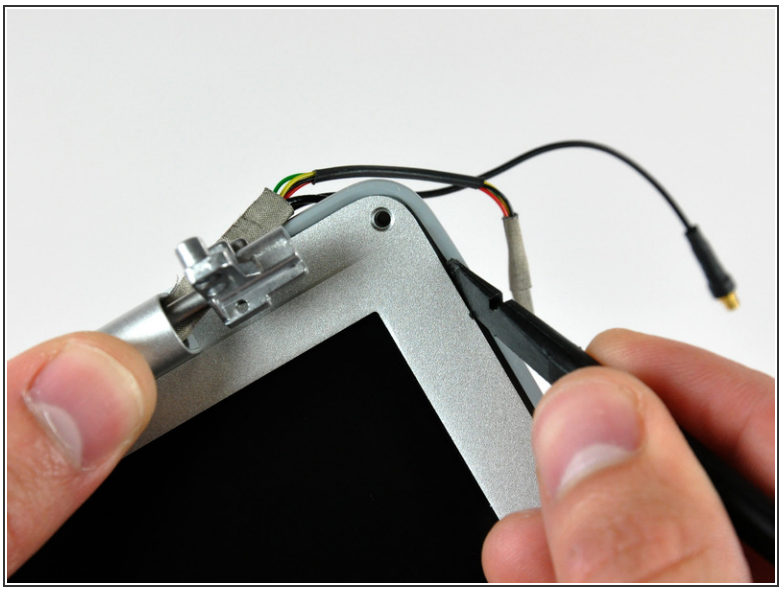
Step 26

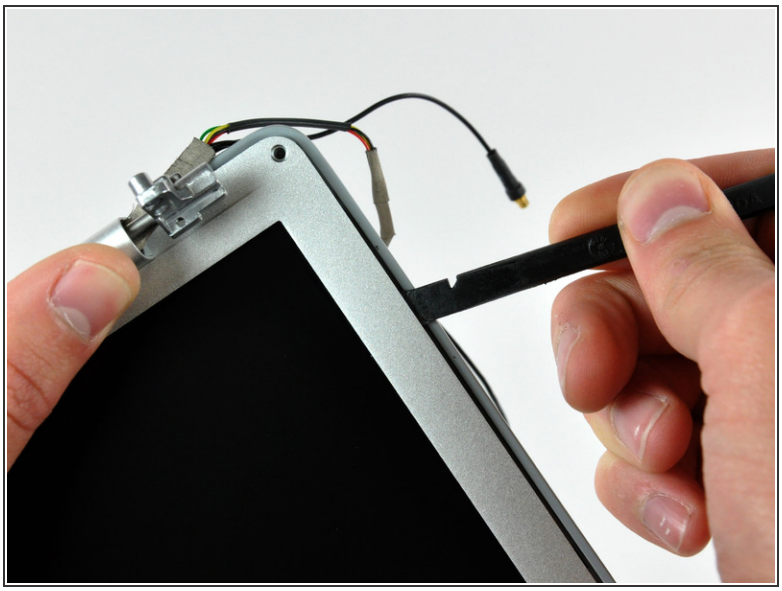


- Insert the flat end of a spudger between the front display bezel and the plastic rim attached to the rear bezel near the lower left corner of the display.

Do not insert the spudger between the plastic rim of the rear display bezel and the aluminum rear display bezel plate.

Step 27



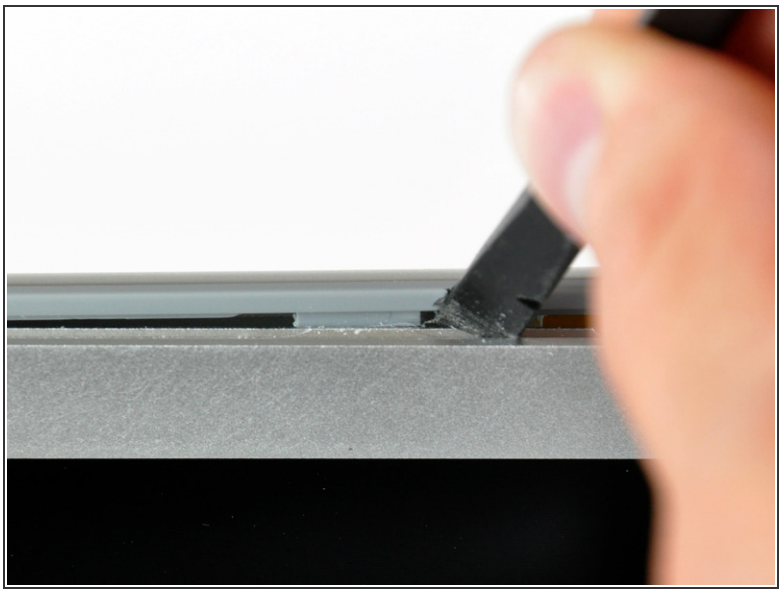


- With your spudger still inserted under the front display bezel, run it around the lower left corner of the display.
- Rotate the spudger away from yourself to pry the rear display bezel off the aluminum tabs on the front display bezel.
- Work your way down the side of the display until the rear display bezel has been separated from the front display bezel.

Step 28

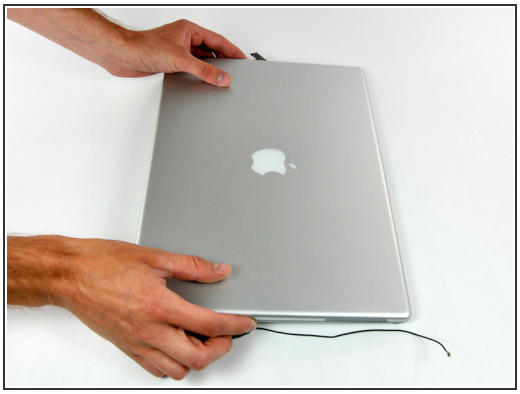
- Insert the flat end of a spudger between the rear display bezel and the clutch cover.
- Twist the spudger to unclip the rear bezel from the clutch cover.

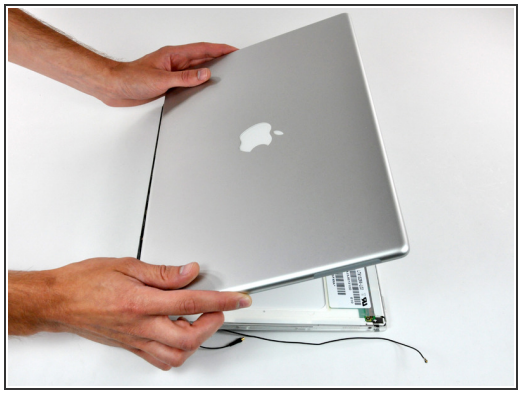
Step 29



- Repeat the previous steps to separate the right side of the rear display bezel from the display.
- Use your spudger to pry the plastic retaining clips on the rear display bezel over the raised aluminum tabs on the front display bezel.
- At this point, the clips on the left and right edges of the rear display bezel should be free from the raised aluminum tabs on the front display bezel. If they are not, use a spudger to pry them past the front display bezel.

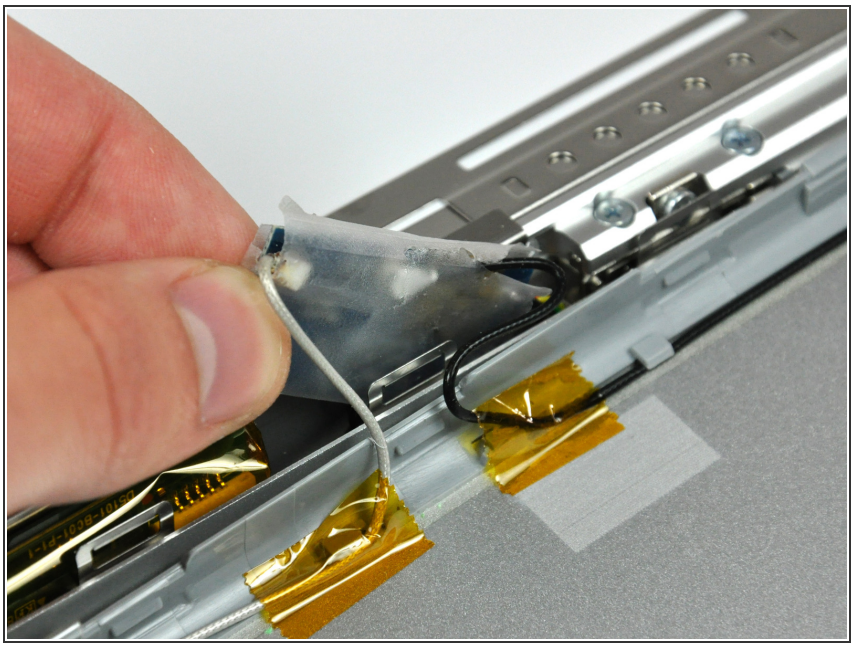
Step 30





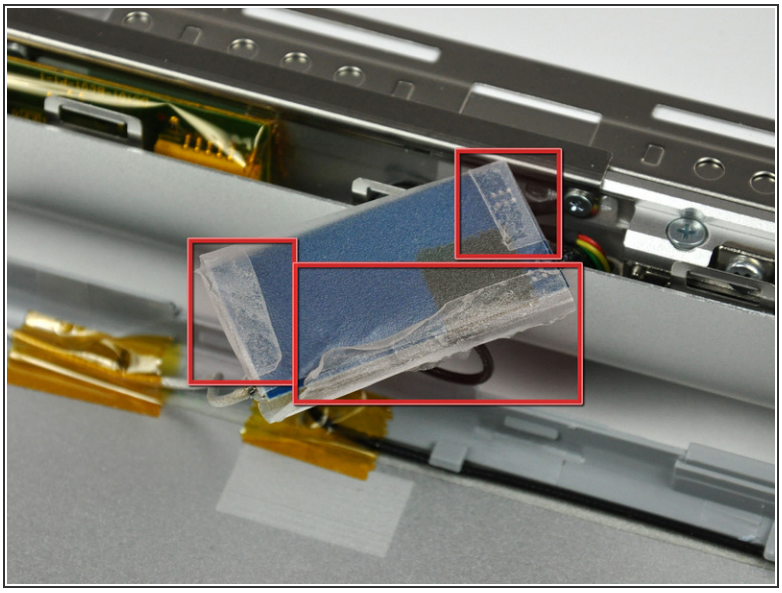
- Slightly lift the lower edge of the rear display bezel and push it toward the top edge of the display, releasing the clips along the top edge of the rear display bezel.
- Rotate the rear display bezel toward yourself and lay it flat on the table.

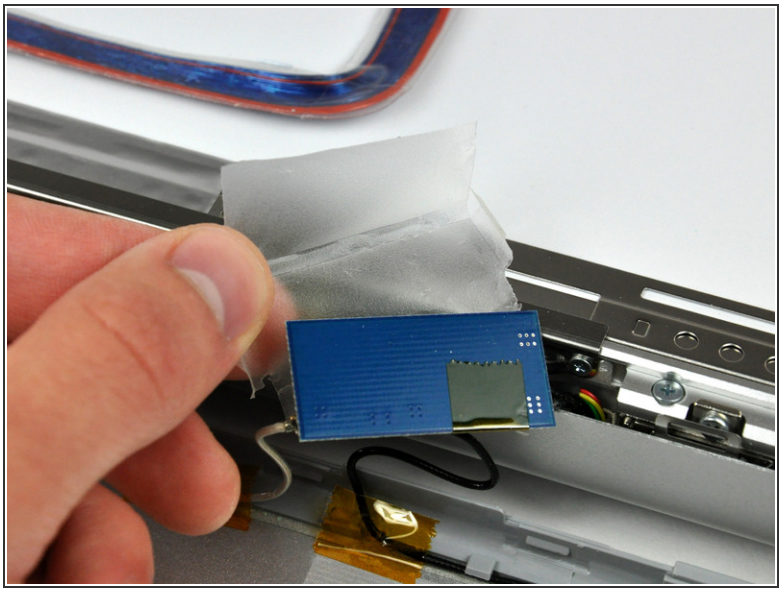
Step 31



- Lift the antenna board out of the clutch cover.

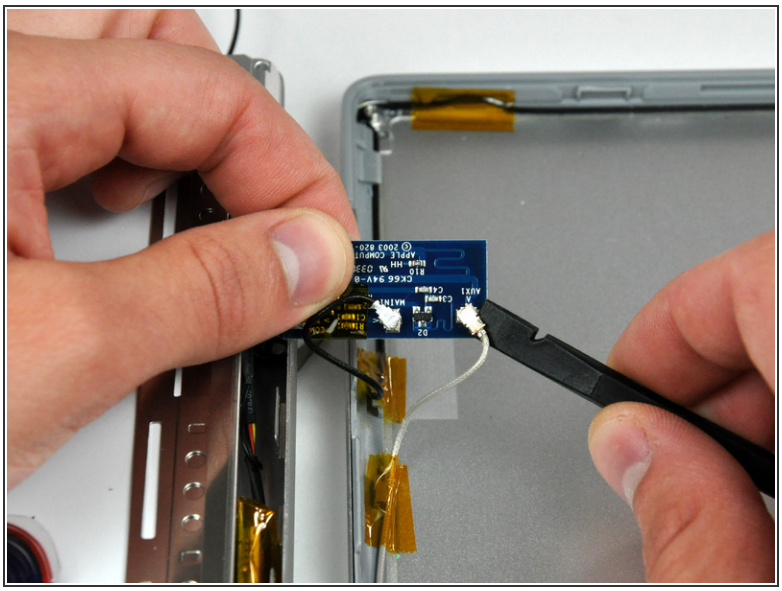
Step 32

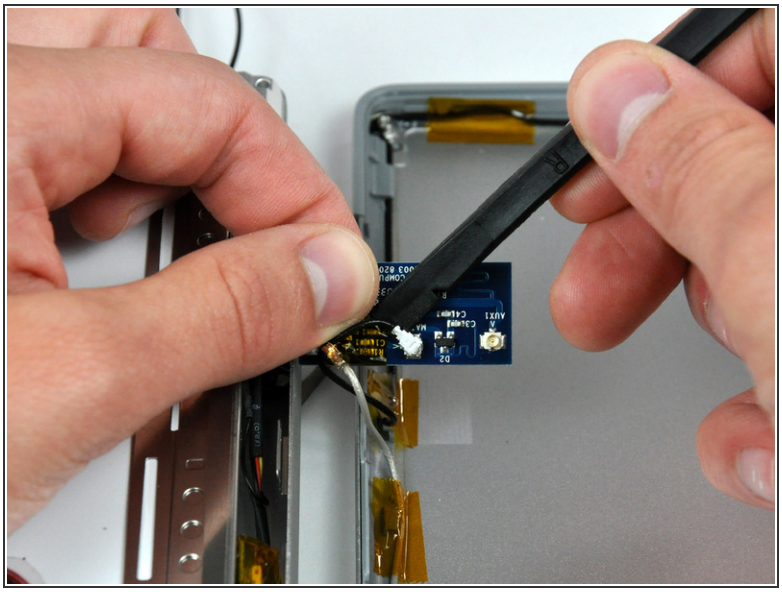




- Peel back the three edges of the antenna board cover and remove it from over the antenna board.

Step 33

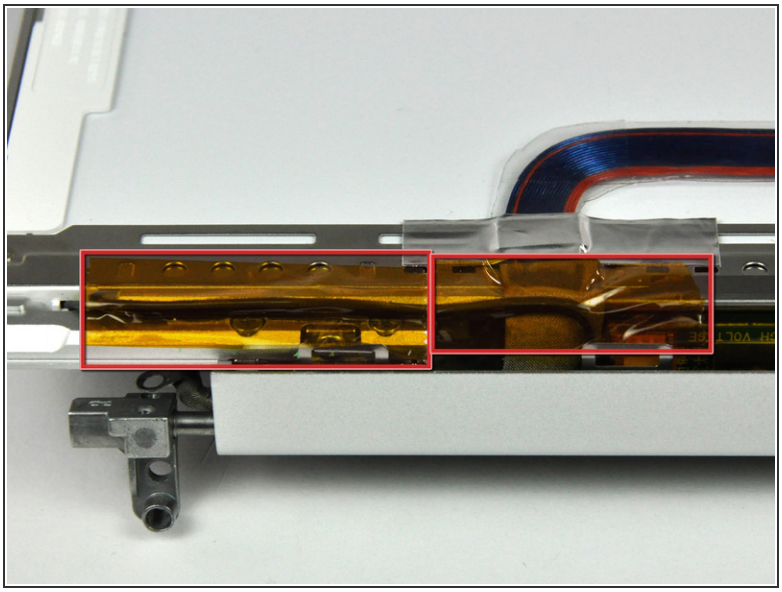


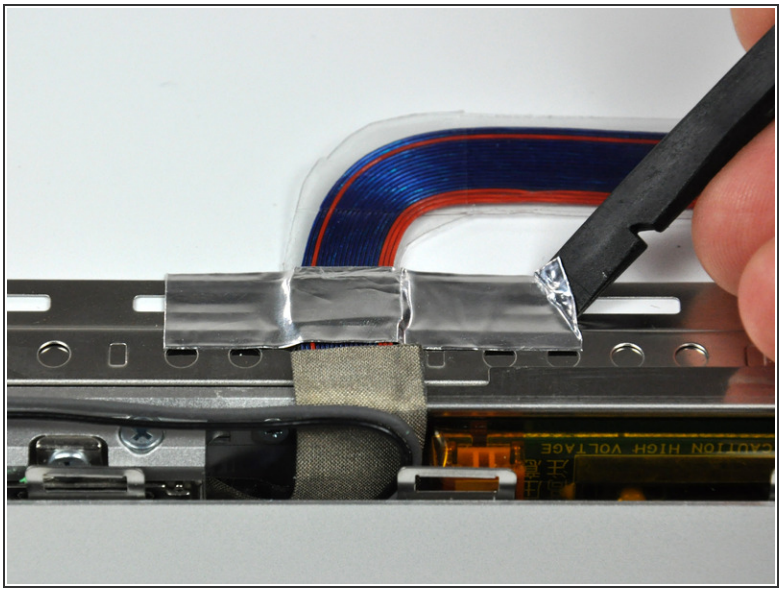


- Use the flat end of a spudger to pry both antenna connectors up off the antenna board.

The black antenna connects near the center of the antenna board.

Step 34 — Front Display Bezel

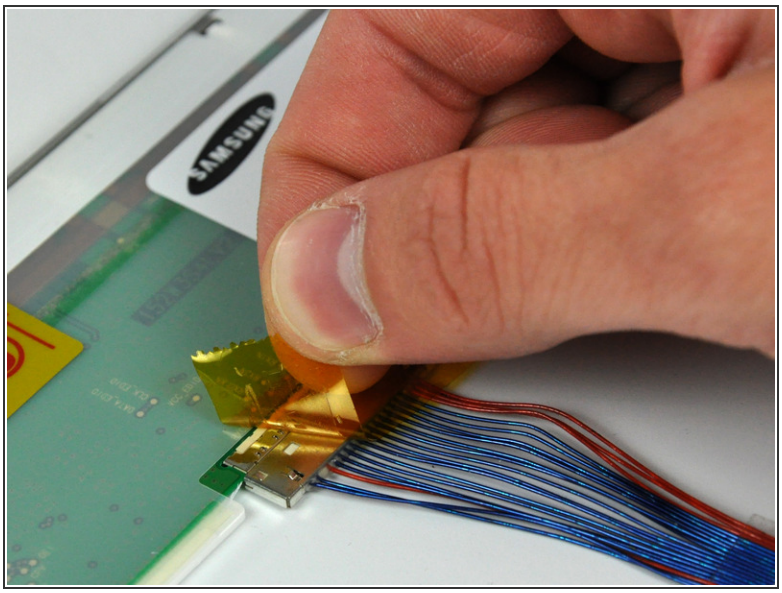


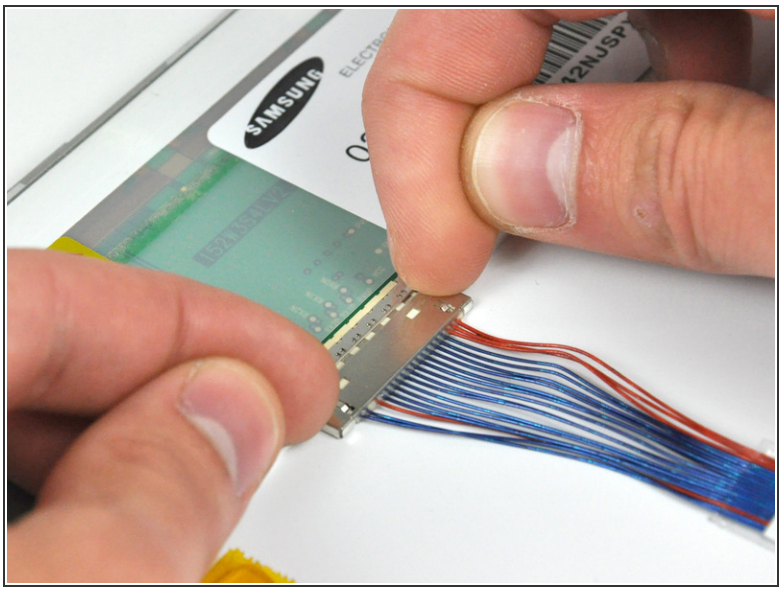


If necessary, remove the pieces of tape covering the two inverter leads.

- Use the flat end of a spudger to remove the piece of foil tape securing the display data cable to the LCD frame.

Step 35

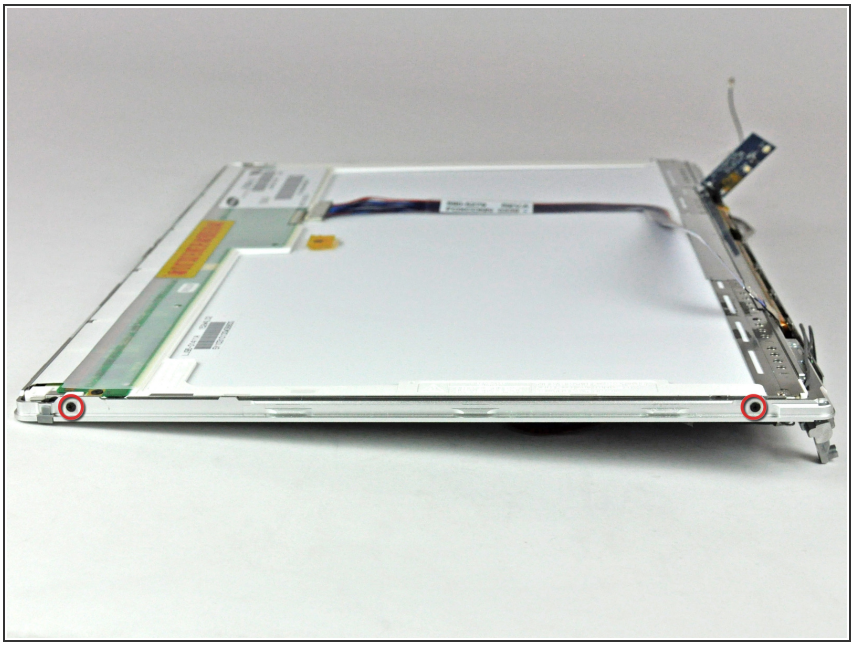




If necessary, remove the piece of tape covering the display data cable connector.

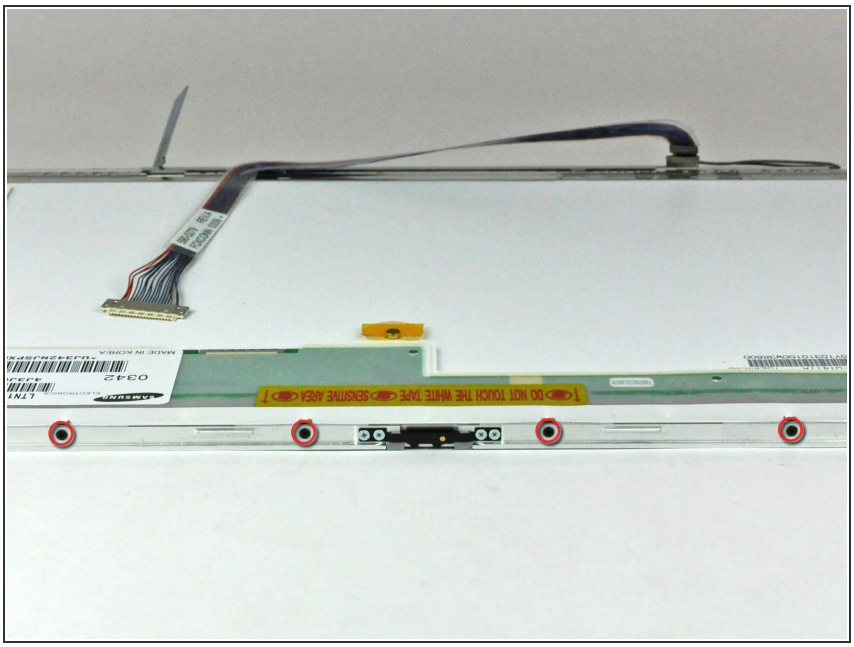
- Pull the display data cable connector away from its socket to disconnect it from the LCD.

Step 36



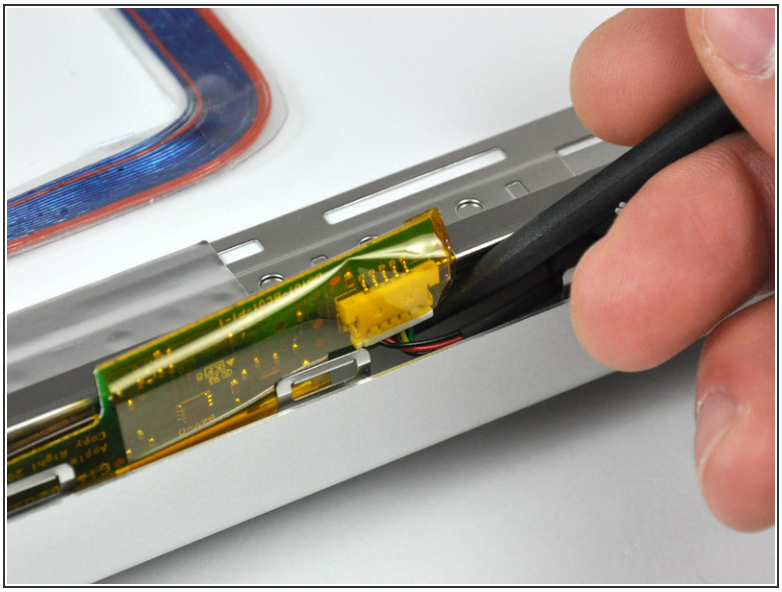
- Remove the two black Phillips screws from either side of the display (four screws total).

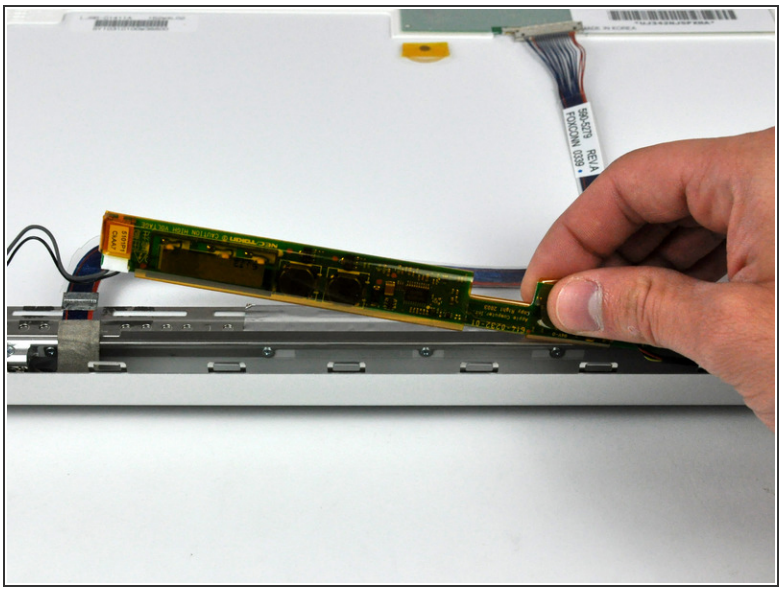
Step 37



- Remove the four black Phillips screws along the top edge of the display.

Step 38

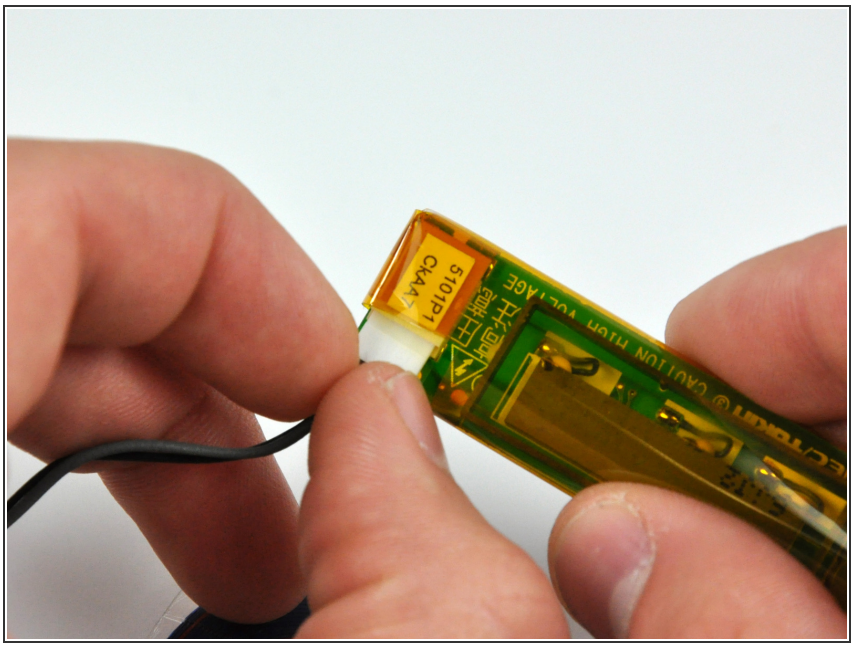




⚠ The inverter is an extremely thin circuit board that is very delicate and easily cracked. Take care when handling.

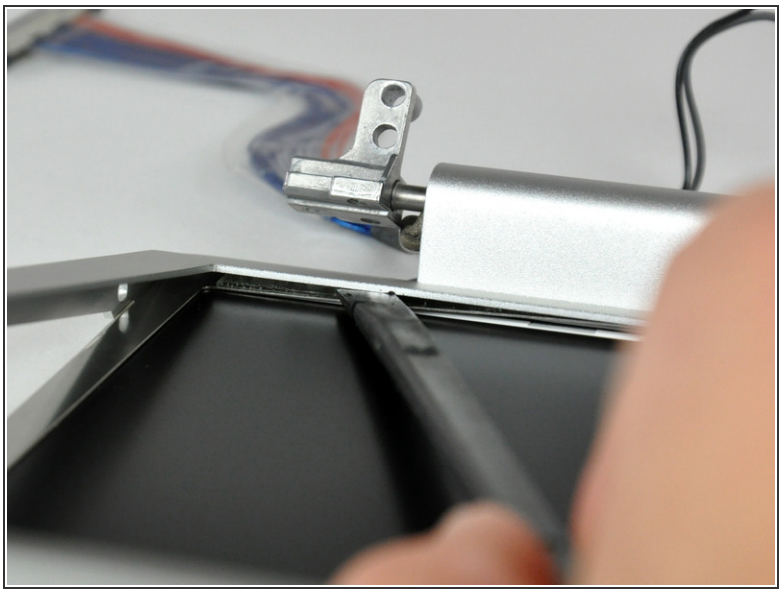
- Use a spudger to raise the end of the inverter out from the clutch cover.
- Lift the inverter enough to access both cable connectors.

Step 39



- Disconnect the inverter cable by pulling its connector away from the socket on the inverter board.

Step 40

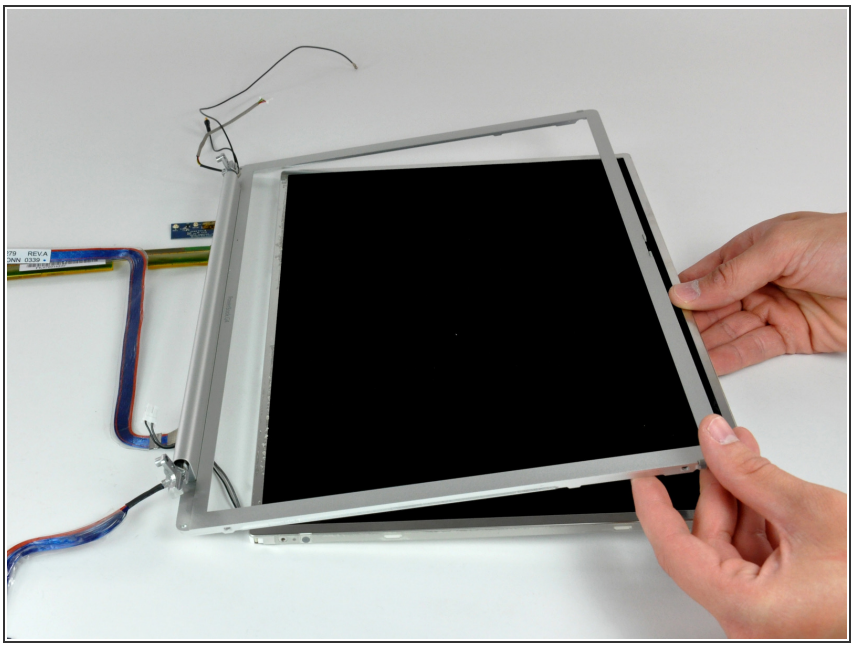


- Flip your display over so the front bezel is facing up.
- Lift the front bezel off the LCD enough to insert the flat end of a spudger between the metal LCD frame and the front display bezel.

⚠ Trying to insert your spudger between the LCD glass and the metal LCD frame will surely damage your LCD.

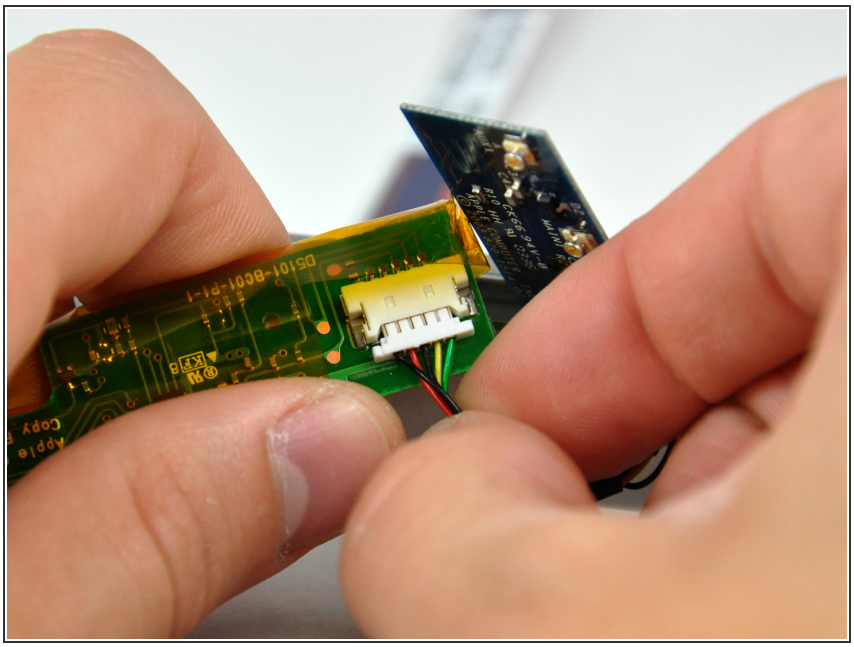
- Run your spudger along the lower edge of the front display bezel to separate the adhesive from the LCD frame.

Step 41



- Pull the LCD toward the top edge of the front display bezel, minding any cables that may get caught.

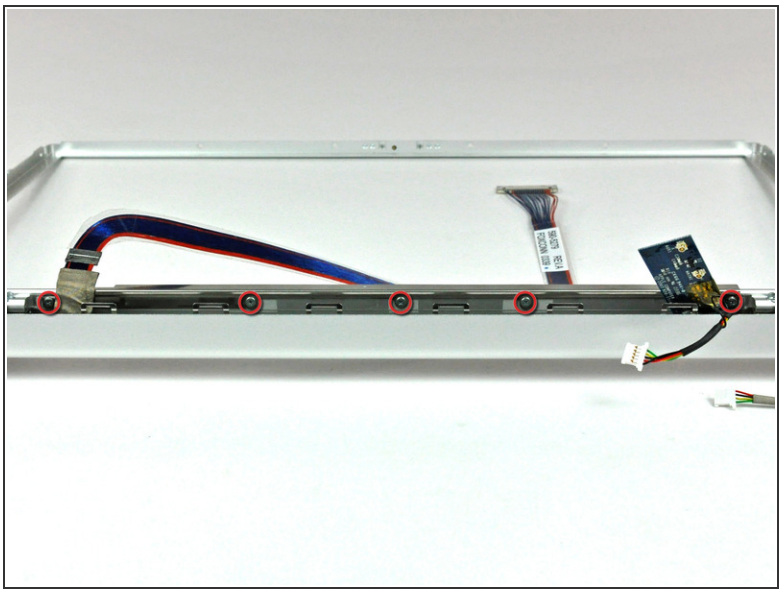
Step 42

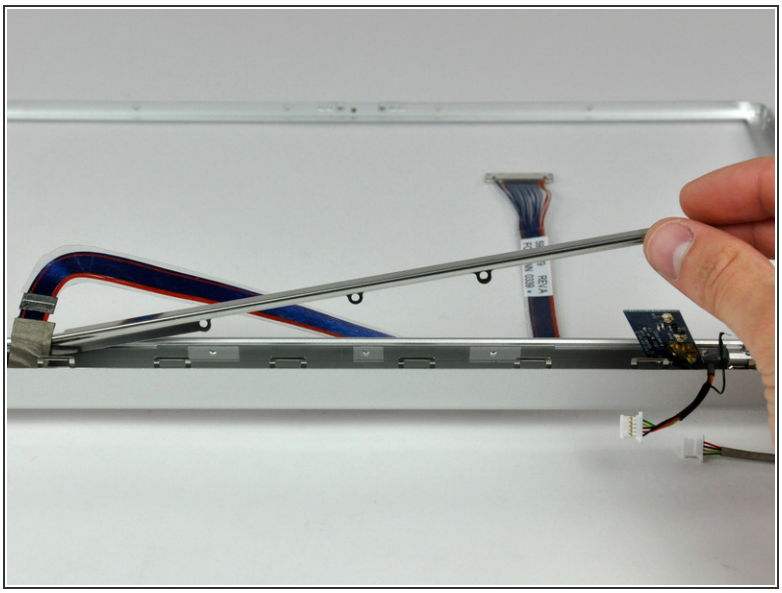


If necessary, lift the inverter out from the clutch cover.

- Disconnect the inverter cable by pulling its connector away from the socket on the inverter board.

Step 43

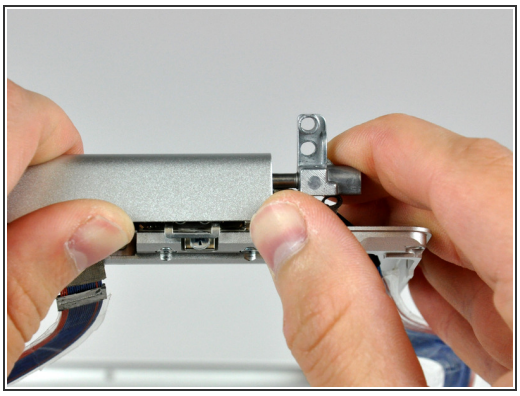
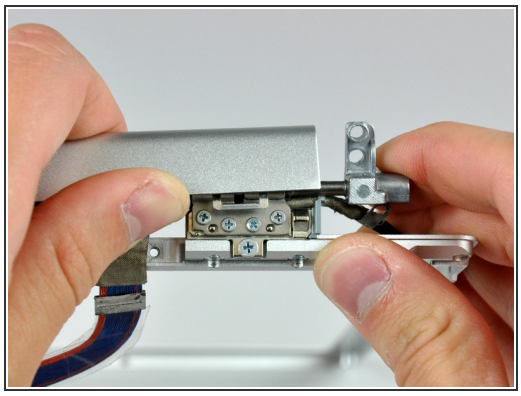
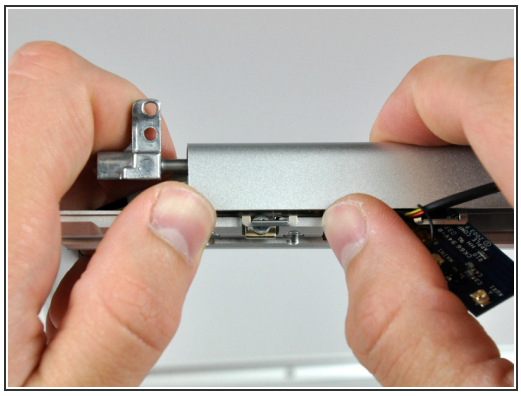




- Remove the five Phillips screws securing the LCD retaining bracket to the front display bezel.
- Lift the LCD retaining bracket off the front display bezel.

Some machines do not have this bracket. If your machine is missing the bracket, remove the five screws and proceed to the next step.

Step 44

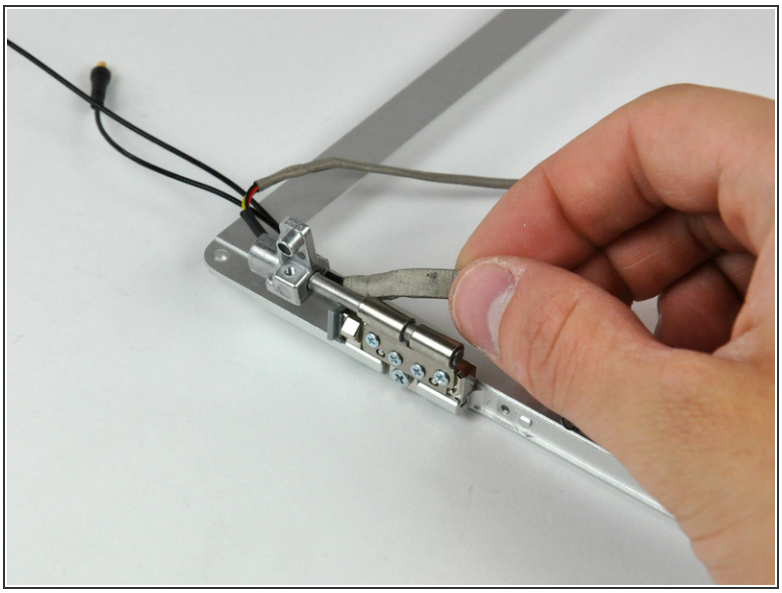
The clutch cover is constructed from aluminum and is held on to the clutch hinges with metal clips that require a good deal of force to remove. Proceed with caution.

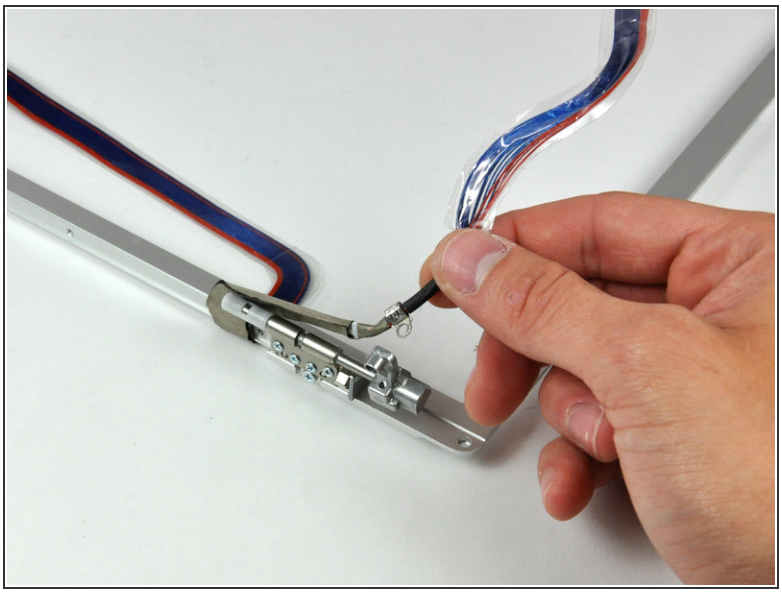
- Use your thumbs to push the clutch cover away from the clutch hinges.
- While pressing with your thumbs, rotate the clutch cover toward yourself about its long edge to pop it off the clutch hinge.

It may be necessary to wiggle the clutch cover while pressing it away from the clutch hinges to release the retaining clips.

- Repeat this process for the other side of the clutch cover. Once the clutch cover is completely free from the clutch hinges, lift it off the front display bezel.

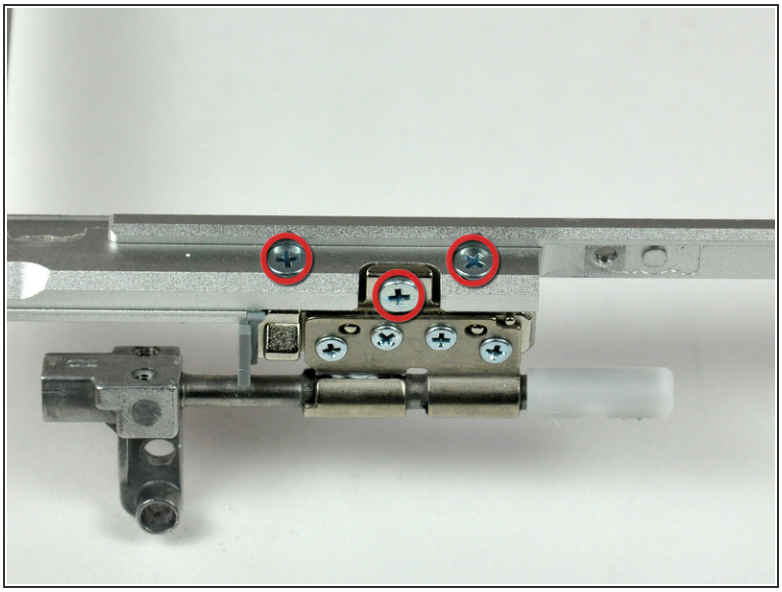
Step 45

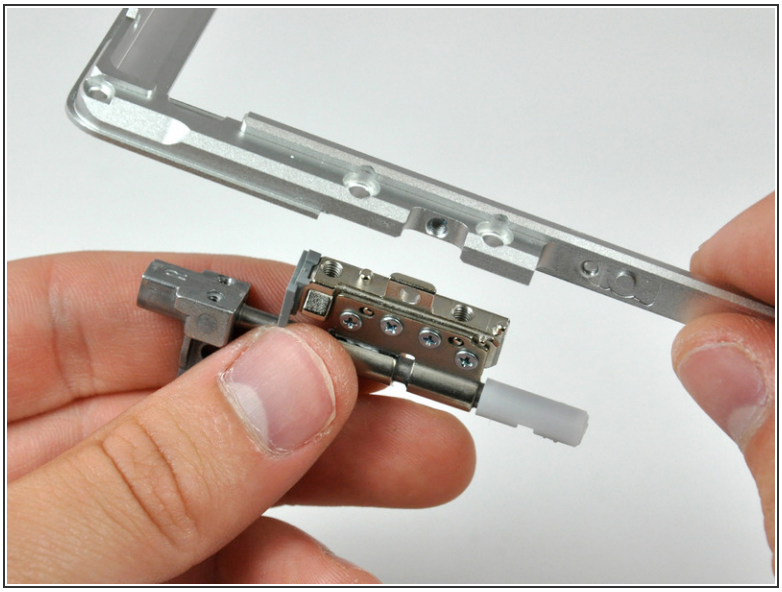




- De-route the inverter and display data cables from the clutch hinges and set them aside.

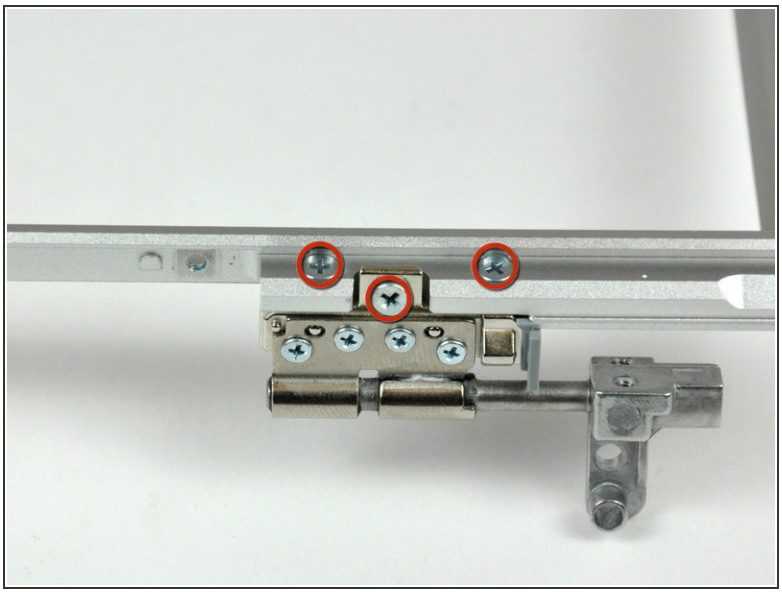
Step 46

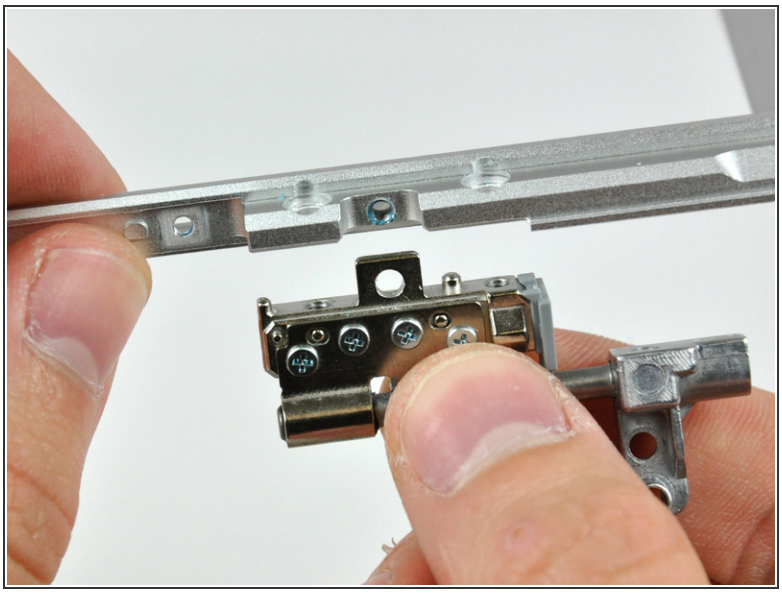




- Remove the three Phillips screws securing the right clutch hinge to the front display bezel.
- Remove the right clutch hinge and set it aside.

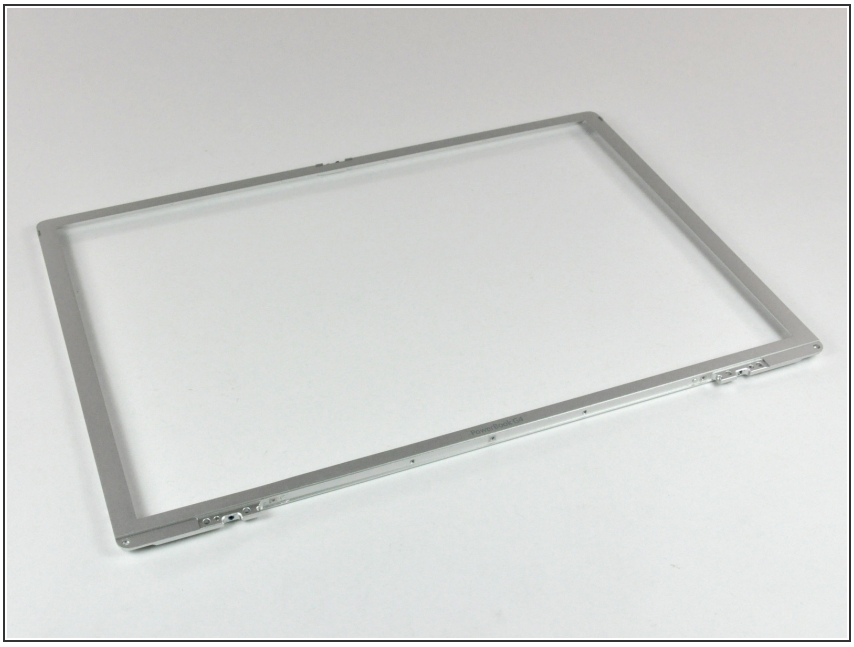
Step 47





- Remove the three Phillips screws securing the left clutch hinge to the front bezel.
- Remove the left clutch hinge and set it aside.

Step 48



- Front bezel remains.

To reassemble your device, follow these instructions in reverse order.

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